



DT - RESISTANT MATERIALS SPECIALISM

What will you study during the course?

This course is concerned with the designing and making of products and artifacts using wood, metal or plastics.

The **Designing** aspect of the course will include identifying needs and opportunities, research and investigation skills, appreciating the needs of a 'client', product analysis and an understanding of the real world of design and manufacture. Products will be developed from initial ideas, through detailed development, to the production of working drawings.

Through **Making** you will develop an understanding of the properties of materials that make them suitable for specific uses, develop the skills involved in working with these materials using a variety of hand and machine tools safely and accurately, how to plan the sequence of manufacture and how to test and evaluate the final product.

How will the course be taught?

Students are taught through a variety of short tasks to develop practical skills. Theory work is used to support the practical activities. In addition to this they are introduced to the drawing and design skills they need to develop their own creative skills. ICT is used extensively to present the work in the design folder. Science and Mathematic skills, knowledge and understanding underpin the theory and practice of design and technology. These skills will be embedded in the examination for this qualification.

In the last term of Year 10 onwards they will work on the Design aspect of the Controlled Assessment set by a context identified by the examination board.

How will your work be assessed?

A Controlled Assessment task will test students' skills in investigating, designing, making and evaluating a prototype of a product that will allow them to apply the skills they have acquired and developed throughout their study.

A written exam taken at the end of Year 11 is worth 50%. The paper will assess the breadth of design and technology knowledge in the Core section, and assess the depth of knowledge in the chosen material category for the Specialist section to enable students to fully demonstrate their own particular strengths or specialism.

Where can it lead?

Further Education: A Level Design Technology: Product Design – Resistant Materials.

Higher Education: Degrees in Product Design, Automotive design, Engineering, Apprenticeships in a variety of industries including Aviation, Automotive, Electrical and others.

Careers

Architecture, product design, graphic design, most areas of engineering, telecommunications, electronics industries, manufacturing industries, business and commerce, education, research and development.

NB: Students can only choose one of Graphics, Resistant Materials and Textiles.